

**CORONAL DIAGNOSTICS OF INTERMEDIATE ACTIVITY STAR XI BOO A**

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**Final Report**

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The analysis of xi Boo A proved difficult to adapt to our line-by-line approach because of the strong wings of the RGS instrumental profile, as has been detailed in earlier reports. While progress was also delayed because of problems in using SAS v4, we succeeded in the past year or so to bring the analysis to conclusion.

Abundances have been derived using both EPIC and RGS data, confirming earlier EUVE findings of a mild solar-like FIP effect, though with some evidence of a turn-up in abundances of elements with higher FIP. Plasma densities appear normal for a moderately active stellar corona. Xi Boo A nicely bridges the gap between the very active stars and stars like the Sun, and it indeed does appear that these are the stars in which the solar-like FIP effects begins to change to the "inverse FIP" type of effect seen in the very active stars. Probing this divide was the main goal of the proposal. These results are in the process of being prepared for publication, though we have not decided the target journal as yet.